

## How does Portsmouth Naval Shipyard measure up against the 2005 BRAC Criteria?

BRAC Criteria #1. *The current and future mission capabilities and the impact on operational readiness of the Department of Defense's total force, including the impact on joint war fighting, training, and readiness.*

- Portsmouth Naval Shipyard is the Navy's lead shipyard for submarine maintenance and repair, holding multiple records for low cost and ahead of schedule performance on Engineered Refueling Overhauls (~ \$230 to \$250 million) and Depot Modernization Period Overhauls (~ \$130 to \$150 million) while maintaining the highest levels of product and service quality. Result is least cost to Navy and submarines consistently returned to Fleet promptly in support of future missions.
  - Best ERO schedule performance in Navy with four (4) consecutive EROs completing early and the current Navy record for the shortest duration ERO.
  - Best ERO cost performance in Navy and the current Navy record for the least expensive ERO.
  - Best DMP schedule performance in Navy with three (3) consecutive depot modernization period overhauls completing early and the current Navy record for the shortest duration DMP.
  - Best DMP cost performance in Navy and the current Navy record for least expensive DMP.
- Portsmouth NSY is the only naval shipyard with a full spectrum of nuclear and diesel submarine maintenance experience, including reactor servicing, overhaul, modernization, testing, and other emergent repair.
  - Seventy six (76) major overhauls of nuclear powered fast attack and ballistic missile submarines completed in the last fifty (50) years. This total is twenty-two (22) more major overhauls completed to date than any other public or private shipyard.
  - Lead shipyard for attack submarine maintenance and modernization including preparation of SHAPEC overhaul planning and execution software for all naval shipyards (private shipyards are now requesting SHAPEC support for their upcoming submarine maintenance availabilities).
  - Co-location of Navy's submarine life cycle maintenance planning activity within the shipyard property enhances the "flow" of engineering resources through all facets of submarine planning and execution such that both activities (and in turn Navy) benefit.
  - Continuous exporting of process improvements and lessons learned, use of on-site manager/engineering/tradesman support and mentoring of public and private shipyards during the planning and execution stages of their submarine overhauls.
  - Corporate engineering knowledge from the construction of one hundred twenty-six (126) diesel powered submarines and ten (10) nuclear powered submarines utilized with current overhaul experience to assist Navy with technical and maintainability reviews of new submarine designs.
  - Extensive experience with design, planning and execution of new ship alterations.

- Extensive experience with planning and execution of unique major maintenance tasks on nuclear attack submarines and special mission submarines.
  - Frequent use of Portsmouth technical experts to solve Fleet wide problems.
  - Plans and executes life cycle maintenance and system upgrades on deep-diving special mission submarines including NAVAL RESEARCH-1 and USS DOLPHIN (AGSS 555).
  - Plans and executes life cycle maintenance and system upgrades on Special Forces Seal Team delivery vehicles and support equipment including Advanced Seal Delivery Systems (ASDS) programs.
  - Lead shipyard for equipment supporting submarine rescue, including design and certification of Navy's newest submarine rescue system (SRDRS).
  - Preparation for maintenance of USS VIRGINIA class nuclear attack submarines at Portsmouth NSY is underway.
- Portsmouth NSY piers, dry-docks, nuclear licenses, special permits, and critical trade skills are impossible to reconstitute.
    - Portsmouth NSY is one of only two nuclear certified public shipyards on the east coast of the United States.
    - Dry-dock facilities are capable of docking all Navy submarines and deep diving submersibles.
    - Numerous DOD, DHS, federal, regional, state and local licenses, permits, agreements, etc. currently held by Portsmouth NSY took years/decades of negotiations to develop.
    - Although detailed technical procedures and comprehensive workforce training are mandatory for performance of work on submarines, the knowledge of expert journeymen and engineers has been passed through generations of Portsmouth workers for over two centuries (It is common for generations of same family to work at Portsmouth).
- Although the primary mission at Portsmouth Naval Shipyard is continued support of submarine maintenance and modernization, regional synergy between the Naval Undersea Warfare Center in Newport, RI., Electric Boat Company in Groton, CT., the Naval Submarine Base in New London, CT and Portsmouth Naval Shipyard presents opportunities for rapid technology insertion and integration of overhaul lessons learned into new construction design and life-cycle submarine support.
    - Portsmouth has provided decades of scheduled and emergent Fleet maintenance support for submarines in New London by shuttling resources between the two locations.
    - Electric Boat and Portsmouth human resource partnering supports Navy's One Shipyard Concept of maximizing the use of all shipyard workers available in the nuclear shipyard community.
- Portsmouth NSY supports other services maintenance work (quantity based on workforce availability) within the Northeast region.
    - Surface ship maintenance (much less complex than nuclear submarine maintenance) is easily accommodated based on workforce availability

- Highly skilled workforce with modern equipment and fully outfitted back shops.
  - In-house multidisciplinary engineering and quality assurance capability.
  - Deep-water access and ship berthing and drydocking capability.
  - Portsmouth provides a geographically dispersed (furthest north and east public shipyard) comprehensive joint service support capability directly on the Atlantic Ocean, in case of natural disaster or terrorist act at other Navy Fleet support activities.
- Portsmouth Naval Shipyard is currently providing joint services mission support (Department of Defense, Special Operations Command, Department of the Navy, and the Department of Homeland Security).
    - Three (3) US Coast Guard ships are now home-ported at Portsmouth Naval Shipyard including USCG Reliance, USCG Tahoma and USCG Campbell with capacity to add more cutters.
    - Portsmouth Naval Shipyard provides pier and utility support, office space, maintenance facilities, tooling, rigging, Morale Welfare and Recreational support, and on and off base housing to the US Coast Guard.
    - Portsmouth NSY is a primary North Atlantic receiving and staging area for the Navy's Deep Submergence Rescue Vehicle in the event of an incident in the North Atlantic area.
    - Portsmouth NSY provides direct mission support to the Special Operations Command including design and installation of mission specific equipment and on site maintenance of Special Forces delivery vehicles and support equipment.

*BRAC Criteria #2. The availability and condition of land, facilities, and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.*

- Portsmouth NSY has the space and the assets to accommodate increased missions and personnel.
  - The shipyard encompasses 297 acres, 179 buildings containing over 3 million square feet of space including 49 ship repair/overhaul buildings, 6,224 lineal feet of ship berthing, and three drydocks capable of docking all Navy submarines.
  - With one end of the island out of the industrial area, there is available undeveloped land with direct access to the Piscataqua River.
- Portsmouth NSY is situated on a very secure island with two guarded access bridges. Water approaches would be difficult for unauthorized entry by small craft or divers due to river currents and continuous security surveillance. Location is ideal for any sensitive DOD or DHS program due to the inherent characteristics of the island facility as currently configured for security of nuclear submarines.
- Condition of land and facilities is very good, with considerable funds invested during the last five years on facility improvements.

- Over \$200 million invested in facilities improvements, modernization, and updates over the last 20 to 25 years.
  - Portsmouth NSY facilities have been modernized to support the latest technologies and the most efficient depot maintenance operations required to overhaul nuclear and special mission submarines.
  - Total plant value for real property is over \$1 billion with plant equipment valued at over \$500 million.
  - Three dry docks with built-in services, multiple large capacity portal cranes and environmental enclosures allow docking and full enclosure of all Navy submarines undergoing overhaul including climate control surrounding the vessel, regardless of the weather adjacent to the drydock.
  - Fully capable outfitting berths with built-in services and multiple large capacity portal cranes.
- Portsmouth NSY has space and facilities to leverage regional and local expertise in support of Department of Defense and Department of Homeland Security needs.
    - Emergency Command and Control Center.
    - The only naval shipyard with unobstructed access to open ocean and positioned for DOD and DHS training exercises and emergency response.
    - Portsmouth NSY provides a convenient staging area for mobilization with ready access to Pease Airport (large, modern runway capable of landing largest DOD transport aircraft) as well as railway service with a spur directly into the shipyard and major interstate highway within two minutes drive from the two security gates.
    - Weapons firing range is located on the island and is currently used by Navy and shipyard security personnel.
- Location as the northern and eastern-most public shipyard directly supports dual use of the shipyard property for numerous training scenarios involving changing environments (climates, terrain, undersea, etc.) for joint or single-service training exercises. Portsmouth NSY personnel have participated in Navy special operations training and submarine rescue operations training.
- The shipyard has extensive in-house engineering, production shop and quality control capability, which is capable of supporting a wide range of mission support repairs on ships, aircraft, vehicles, and weapons systems.
- Current chemical and radiological capabilities supporting its core workload can serve as the foundation for expanded emergency response missions supporting homeland security.
    - Regional incidence response force available for chemical and radiological events.
    - Trained responders with knowledge, experience, and equipment.
    - Portsmouth NSY provides hazardous materials response for all of York County, Maine.
    - Natural disaster emergency response capabilities are available should the need arise within the Northeast region.

- The HAZMAT team has responded to releases on the shipyard as well as spills throughout the local community (propane releases and suspected anthrax attacks).
- Portsmouth NSY is a critical member of the Piscataqua River Cooperative, a joint hazardous substance response team comprised of coastal corporations, state and local agencies. The team is specially trained and experienced in handling spills or releases in difficult conditions such as swift water current. Recently deployed to Bayonne, NJ where an underwater pipeline burst during the offload of an oil tanker.

BRAC Criteria #3. *The ability to accommodate contingency, mobilization, and future total force requirements at both existing and potential receiving locations to support operations and training.*

- Portsmouth NSY has a demonstrated history of supporting fluctuations in resources to support new Navy requirements.
  - The shipyard footprint has supported as many as 25,000 employees (World War Two era) and as few as 3,300 employees (with sudden cancellation of several EROs in the last decade). Current shipyard workforce of just over 4,300 employees has achieved sustained excellent submarine overhaul performance.
- Portsmouth NSY's fiscal year 2004 workload is over 650,000 mandays and is projected to remain at about that level through fiscal years 2005 and 2006. Workload levels beyond 2006 are determined by Navy distribution of available overhaul work.
  - Portsmouth NSY currently performs approximately 15% (just under 100,000 mandays) of total annual workload (primarily submarine maintenance and /or modernization work typically in homeport areas) per year. This percentage has varied with workload quantity and type, from 3% to 30% in the recent past.
  - Portsmouth workload also reflects loaning/borrowing of engineers and tradesmen between shipyards to dampen the effect of short term work overload periods.
- This shipyard has demonstrated the ability to change to meet a changing environment. Continuous review of technical requirements, work practices, equipment, personnel policies and available technology to achieve the highest quality product for a fair price has been a cultural trademark of the shipyard.
  - Examples include: LEAN best business practices implementation and home-porting of Coast Guard cutters.
- Four seasons of weather changes (but typically not affected by destructive storms like hurricanes or tornadoes), close proximity to (and unrestricted access) to open ocean, a large runway, rail service and a major highway, controlled waterfront landing areas on shipyard property and northern wilderness in the immediate area are conducive to a wide range of training evolutions for all services.
- Housing units and quarters typically used by Military personnel can also support Force mobilization.

- Modern privately owned military housing units are in close proximity to the shipyard.
  - New and recently upgraded barracks are in use by Army, Navy, Marines, Air Force, Coast Guard and National Guard personnel. Additional berthing of ship's force has (in the past) been provided by temporarily relocating large capacity Navy berthing barges to the Portsmouth area at pier space adjacent to submarines in overhaul.
  - Refurbishment of a currently underutilized (former prison) building complex would provide very large increase in available on yard housing and office space.
  - Many high quality hotels available in the Seacoast area.
- Large supply buildings are located at various locations around the property, which could support mobilization. These buildings typically provide storage of submarine components/parts or support materials but in a major mobilization situation, materials could be moved to optimize on site storage.

BRAC Criteria #4. *The cost of operations and the manpower implications.*

- Portsmouth NSY is the least costly naval shipyard to operate.
  - Portsmouth has executed under its Navy mandated financial goals for seven consecutive years while still setting performance records on work assigned by Navy.
  - Current year savings returned to Navy Working Capital Fund helping to compensate the Fund for losses at other locations.
  - Portsmouth outyear manday rates reduced for all Navy customers based on exceeding financial yearly goals.
  - Portsmouth has worked with the Fleet to fix price overhaul work at Navy (notional) goals.
- Excellent management and worker relations.
  - Union teaming with shipyard management is model for all public and private shipyards. Cooperation between management, unions and workforce allows for rapid implementation of processes that improve efficiency, improve quality, reduce costs, and/or complete work on or ahead of schedule (expanded use of LEAN business practices through the shipyard and One Nuclear Shipyard workforce sharing initiative have proved most successful examples of this cooperation).
  - Unlike private shipyards who must ask for tradesman volunteers to work off-site, naval shipyard unions support Navy's need to rapidly forward-deploy shipyard workers on short notice as necessary to support the Fleet. While Portsmouth's workforce has demonstrated for decades, the willingness to work off-site (e.g. Connecticut, Virginia, Georgia, Florida, California, Washington, Hawaii, Guam, Europe) for many months at a time to support mission, few move away permanently due to the strong bond to the quality of life in the region.
  - The highly trained and motivated workforce consistently improves on the Navy's performance records and exports lessons-learned to other shipyards.

- Low cost, on schedule work, modern business practices, and high efficiency have been significant factors in the shipyard's mission accomplishments. Consecutive submarine overhauls (EROs, DMPs) have been completed on time or ahead of schedule saving the Fleet funding and returning submarines to mission ready status ahead of schedule.
  - Current cost and schedule performance record holder for LOS ANGELES class submarine overhauls.
  - Skilled workforce is often exported to assist other shipyards in the performance of their submarine repair and overhaul work.
  - Overhead costs closely controlled resulting in no increases for four straight years.
  - Portsmouth success achieved while replacing over one half of our tradesmen in a five (5) year timeframe (retirements, promotions, etc.) during a peak workload period for all naval shipyards. As a result, Portsmouth current (younger) workforce is acquiring significant experience that will pay off on future submarine overhauls.
  
- Portsmouth NSY has the lowest compensation lost workday rate and the lowest compensation costs of the four public shipyards, resulting from its low injury rates, aggressive limited duty programs, and strong case management.

BRAC Criteria #5. *The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.*

- Portsmouth NSY is the least costly naval shipyard to operate and is delivering submarine overhauls ahead of schedule and for less cost than any other shipyard (public or private). Would a weighted calculation of potential closure savings based primarily on operating costs also consider the serious financial and operational effects on the Fleet due to the loss of their strongest submarine maintenance provider? What is the value of consistently returning submarines to service early? What is the collective value of returning several submarines to service early? How do you calculate the value of a strike-free naval shipyard workforce immediately responding to Fleet emergencies any where in the world without concern for contract negotiations? How do you measure loss of the only naval shipyard workforce that understands all aspects of submarine new construction in addition to all aspects of submarine maintenance and modernization? Would basic calculations consider the cumulative effect of closure on the entire region?

BRAC Criteria #6. *The economic impact on existing communities in the vicinity of military installations.*

- Portsmouth NSY, base personnel, tenant commands and submarines crews have a significant economic impact on the region and over 38 communities.
  - \$283 million in annual civilian pay roll, \$16 million in Navy payroll, \$34 million in local purchases, and \$30 million in contracted services. (Coast Guard payroll/services not included)

- About 4,600 civilian jobs employing personnel primarily from Maine, New Hampshire, and Massachusetts.
  - Declining Portsmouth NSY employment in the mid-1990's had a significant negative impact on the area. There is no major metropolitan area in the immediate vicinity to absorb potential job losses. In fact, the lack of manufacturing jobs in the region remains a serious concern today as in the last decade where long distance relocations were common for laid off tradesmen and engineers to obtain government employment at the same pay levels.
  - Collective effect of loss of donations to charities and non-profit organizations in the region would be severe considering the small population base of local communities.
- Portsmouth NSY restores/maintains a large quantity of historically significant buildings in support of its missions.

BRAC Criteria #7. *The ability of both the existing and potential receiving communities' infrastructure to support forces, missions, and personnel.*

- Portsmouth NSY has the space and the assets to accommodate increased missions and personnel.
  - The shipyard encompasses 297 acres, 179 buildings containing over 3 million square feet of space including 49 ship repair/overhaul buildings, 6,224 lineal feet of ship berthing, and three drydocks capable of docking all Navy submarines.
  - With one end of the island out of the industrial area, there is available undeveloped land with direct access to the Piscataqua River.
- The base and surrounding communities are well poised to support increases in support forces, missions, and personnel.
  - Over \$76 million spent on MILCON since 2001 to improve on yard facilities, housing, security, and environmental capabilities.
  - Two hundred military family housing units were constructed in the 1980's to provide for the living needs of submarines crews at Portsmouth Naval Shipyard.
  - A commissary/base exchange was completed in the mid 1990's.
  - A new Child Development Center was completed in 1993.
  - New Bachelor Enlisted Quarters completed in 2003.
  - Private homes, schools, churches and exist in large numbers and high quality in the surrounding areas of the base.
  - Many high quality hotels available in the Seacoast area
  - Seacoast and wilderness areas located nearby are considered prime vacation opportunities.
  - MWR on base provides a large variety of recreational opportunities for all ages.
- The demonstrated ability of the shipyard and local community to support the recent home-porting of U.S. Coast Guard cutters occurred without any stress on community infrastructure.



- The high quality of life in the rural, low crime region is not expected to be detrimentally affected by any increased activity at Portsmouth NSY.

BRAC Criteria #8. *The environmental impact, including the impact of costs related to potential environmental restoration, waste management, and environmental compliance activities.*

- Portsmouth NSY highest priority environmental concern, the remediation of the Jamaica Island Landfill was completed in 2004.
- Portsmouth NSY maintains an Oil Spill Response Unit that supports regional spills, regardless of their source.
- Portsmouth NSY provides hazardous material response for all of York County, Maine.
- The Hazardous Waste Transfer Station at Portsmouth NSY is a Part B commercially permitted facility capable of receiving and disposing of waste generated from and agency in the region. Portsmouth NSY manages disposal of hazardous waste from Brunswick Naval Air Station, the United States Coast Guard, the Air National Guard at Pease Tradeport, and the New Hampshire National Guard at considerable savings to these government activities.
- Environmental Protection Agency permits are extremely difficult to achieve. Portsmouth NSY environmental record and cooperation with the EPA enables the permitting process to proceed with few obstacles or disruptions.